



YAVAPAI SIGNAL



The Yavapai Amateur Radio Club • Prescott, Arizona • DM-34 • Volume 29 - No.4 • April 2014



Greetings: If you missed the March meeting, we had a surprise visit from Mike Martin, owner of RFI Services from Maryland. Mike was here doing some work for APS and offered to talk to our club. Mike travels all over the country helping power companies deal with RFI problems. He was so interesting, I am sorry some of you were unable

to make it. This month we will return to our regularly schedule, with Bud Semon speaking about his Peru DXpedition. Don't miss this one!

As mentioned last time, if you haven't registered for the YARC_Mail, please go to the club website, scroll down to the "YARC Mail" tab and subscribe. This email service from the club is an essential tool to get the word out on issues and announcements.

YARC has three special projects coming up, Field Day, the Granite Mountain Hotshots Memorial Event, and the YARC participation in the Williams hamfest. Each project has its own organizational committee. If you are interested in participating any of these projects/events, please let the appropriate committee know. If you are unsure, contact me, and I will get you to the appropriate person(s). These things have to move along pretty quickly now, so help is encouraged.

I am looking forward to the presentation at our April meeting. Bud N7CW will be telling us about his latest DX adventure. Bud has been working very hard on the W1AW/7 project, and now that he can take a breather he has promised to do a talk soon on using logging programs and Logbook of the World. This is a subject several people have asked about, so let's encourage Bud. Personally, I learned a little about using N1MM Logger in working the W1AW project. It was fun. I heard several of you doing your scheduled time, particularly Jack W7JLC.

I hope to see you at our April meeting. That is **April 3rd at 7:00 PM**. Mark your calendar. ■

Don, WB7TPH

April Program:

Last month we were supposed to have Bud Semon talk, but did a last minute switch to hear from Mike Martin. So, following our April business meeting we will have our own Bud Semon N7CW tell us about his recent DXpedition to Peru.



Bud has been going to Africa for several years as a member of the VooDoo DX group, so this should be a real change of pace for our veteran pile-up chaser. Bud's programs are always a treat, so be sure to attend.

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Welcome to the Yavapai Amateur Radio Club

The Yavapai Amateur Radio Club (YARC) is an ARRL affiliated Special Service Club. The club participates in many activities in the tri-city area by providing communications for local events, emergency communications, and promotion of the hobby throughout the community.

Membership in the YARC is open to any interested amateur or non-amateur alike. Dues are \$20.00/year (Full-time students \$15). The YARC meets at 7:00 p.m. local time on the first Thursday of every month in the Technology Room 404, at the Granite Mountain Middle School, 1800 Williamson Valley Road in Prescott. It is about ½ mile north of Iron Springs road, and all amateurs and non-amateurs as well are invited. Programs of interest are included as part of the meeting.

The weekly Net is held every Wednesday at 7:00 p.m. local time on 146.880- repeater. All amateurs are invited to participate, and visitors are always welcome.

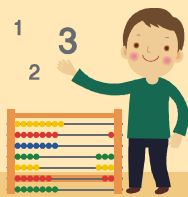
The Yavapai County ARES/RACES Net is held on Monday nights approximately at 7:00 p.m. local time on the 145.290- repeater on Mingus Mountain. A PL of 127.3 is required.

Club Repeater

The YARC 146.880- repeater is located on the hill above Willow Creek road and requires a PL of 100.0 Hz. Our deepest gratitude to Bill Kafka, W2YAV, (SK) for allowing us to acquire the original club repeater. ■

Membership Count:

1st Thurs. in February.....	189
Gain/Loss.....	+5
1st Thurs. in March....	194



Minutes of March 6, 2014 General Meeting

at Granite Mountain Middle School, Prescott, Arizona



Program:

This month's meeting took place in reverse order; the presentation took place before the meeting was called to order. The presentation topic was radio frequency interference; presented by Mike Martin, K3RFI, of RFI Services. Mike was hired by APS to find an elusive interference causing a great deal of noise in the radio shack of Peter Genereaux, W7PRG. The story started about two years ago when Peter bought a house in Prescott, he then noticed a horrendous noise on 80M. He contacted APS regarding the noise; they assured him that the noise would be solved within a week. This was two years ago, and the noise persisted regardless of the near fifty visits and investigations by the APS RFI technician. This is why Mike was hired. Mike told the story of how Peter's noise problem was fixed. It took Mike a day and a half to find and solve the problem. The source of the noise was most unusual in that the power lines crossed the road diagonally, as well as the source being a transformer. Mike has found transformers to be the source of RFI twice in his 35 years of experience. Confounding the problem was that the transformer did not radiate above 3 MHz.

Mike then went on to talk about the systematic way of finding noise invented by Marv Loftness, KB7KK.

- Record the noise pattern
- Locate the structure with the source
- Locate the source on the structure
- Use the receiver from beginning to end
- Ignore noises that do not match your pattern
- And verify the direction of the antenna position 360°

Meeting was called to order by WB7TPH at 20:34 hours, and the Pledge of Allegiance to the Flag was recited by all present.

Introductions: The following new members and visitors were asked to introduce themselves: Tim Wiederaenders, KG7IRU (member), Steven Duck, KG7CWL, Raymond Benny, N6VR, Edwin Nailor, KC6GRY, Marcus Bever, K6YYY, Lisa Ferguson, KK6AFC

Minutes: WB7TPH asked for a motion to approve the minutes of the February 6, 2014 general meeting as published in the "Yavapai Signal". Motion was made by K7POF, and seconded by W7HAM. The motion was approved.

Treasurer's Report: WB7TPH asked for a motion to approve the Treasurer's report as published in the "Yavapai Signal". Motion was made by K6VVR, and seconded by W7HAM. The motion was approved.

Committee Reports: Due to the meeting taking place after the presentation and the lateness of the hour, the meeting was abbreviated.

- Event Communications: WA6ZZJ reported all upcoming dates are in newsletter; need
- operators for all events.
- Fox hunt: K6VVR reported that there would be a fox hunt the following Sunday, March 9, at 1:00 PM (1300)

Old Business

- Williams Hamfest: WB7TPH said club needs donations for William Hamfest; WN7E is leading the Hamfest committee; committee members are needed. Any members attending the Williams Hamfest please contact WN7E.
- Field Day: WB7TPH reported Field day is coming up; members may suggest the location. Suggested that the event and picnic be separated. Chairperson needed to chair picnic committee. Carol KA7LKW accepted the position.
- GMH Memorial Special Event: WB9VGJ asked about possibilities for the GMHMRC QSL card for the memorial. WB7TPH presented the proposed certificate.

New Business

- Thanks for the Party: WB9VGJ stated the party was very nice and he extended many thanks to Carol who planned it. K7POF wanted to recognize

Gale Griswold for her recommendation of Stone Ridge.

Adjournment: WB7TPH adjourned the meeting at 21:01 hours.

50/50 Drawing: The winning ticket No. 532049; K6UWV won \$49 Dollars.

Respectfully submitted,
Forrest Murdoch, Secretary

YARC Officers for 2014

President

Don Bauer, WB7TPH
president@w7yrc.org

Vice President

Rex Mauldin, N7NGM
vice.president@w7yrc.org

Secretary

Forrest Murdock, WH6EAL
secretary@w7yrc.org

Treasurer

David Hanson, W7BJ
treasurer@w7yrc.org

Board of Directors (includes Club Officers)

Creighton Grotbeck -- AD7YR

Ralph Gendron -- W7HAM

Bob Rosevear -- WB7RRQ

Tom Griswold -- WN7E

Newsletter Editor: Joe Oliver, AC6AA
newsletter@w7yrc.org

VE Testing

By Don Bauer, WB7TPH

The next chance to get licensed or upgrade will be May 3, 2014, 9:00 AM at the Jeep Posse Building. Please pre-register online at our club website. Also, we have formally announced a class for Tech licenses on April 19th, also at the Jeep Posse Building. So, if you know anyone who wants to get that first license, here is a class to get them started.





Yavapai Amateur Radio Club
PO Box 11994
Prescott, AZ 86304-1994

TREASURER'S REPORT
February 2014

			General Fund	Repeater Fund
BEGINNING CASH BALANCE - January 31, 2014			9,247.46	2,142.38
Dues - John A Smith	no call	new	18.00	2.00
Dues - Marie Somers	KG7GLQ	new	18.00	2.00
Dues - Art G Zeller	KD6JEG	new	18.00	2.00
Dues - Tracy Wiederaenders	KG7GLH	new	18.00	2.00
Dues - Ron W Shimek	KF7VGN	new	18.00	2.00
Dues - Mike E Helsing	KB7OCR	new	18.00	2.00
Dues - Ryan A Sallee	KG7GLR	new	13.50	1.50
Dues - Pennie Bond	KF7YYZ	new	18.00	2.00
Dues - Jim Zimmerman	N6KZ		18.00	2.00
Dues - Ray Tyrrell	N6MY		18.00	2.00
Dues - Judy Rosevear	KC7MTY		18.00	2.00
Dues - Don Bauer	WB7TPH		18.00	2.00
Dues - Bill Noe	W7PVA		18.00	2.00
Dues - Doug Meyer	KF7YZJ		18.00	2.00
Dues - Robert Cole	KF7RXU		40.50	4.50
Dues - Marjorie Cole	KF7RIG		0.00	0.00
Dues - Bryan Whipp	W7BNW		18.00	2.00
Dues - Theresa Whipp	W7TRW		0.00	0.00
Dues - Richard Taylor	KG7BGW		18.00	2.00
Donation - John A Smith	no call			25.00
Donation - Mike E Helsing	KB7OCR			20.00
Mailing/Handling - Robert Cole	KF7RXU		1.00	
Party Sales - 34 @ \$22			748.00	
Patches (1) Marie Somers	KG7GLQ		3.00	
Decal (1) David Passell	K6UWV		1.00	
50/50 Raffle			86.00	
50/50 Raffle - Jack Szelka	AI1K		(43.00)	
Misc			0.10	
Interest Income				0.08
TOTAL INCOME			1,120.10	81.08
Don Bauer - Hamfest Space Rent	1186		80.00	
Don Bauer - Prizes Annual Party	1186		103.23	
David Passell - Cookies & Pop	1187		10.20	
Erica Simpson - Student Badges	1188		14.00	
Carol Hills - Band	1189		50.00	
StoneRidge Grill - Meals	1190		625.24	
TOTAL EXPENSES			882.67	0.00
ENDING CASH BALANCE - February 28, 2014			9,484.89	2,223.46

Signature: _____

David B Hanson, W7BJ, Treasurer

Date: 3/1/2014

SPECIAL EVENT COMMUNICATIONS.....

By Lloyd, WA6ZZJ



The Yavapai Amateur Radio Club is a dedicated organization of licensed Amateur Radio operators who volunteer their skills and equipment to work together as a communications team. In doing so, we provide communications to aid event organizers and to enhance the safety and security of the general

public. FCC regulations prohibit us from being compensated for our services. These regulations enable us to focus on our core mission: the safety of the public and event participants by providing consistent, coordinated communications.

Each public service event we assist at is unique because of the nature of the activity, the topography and the distances involved. Using the Whiskey Row Marathon as an example, which is spread out over a 26 mile course, the locations where our team members need to be placed are mapped out well in advance, and we may assign them Tactical Call Signs, such as "Water 1", "Van" or "Shadow". On this event, our operators are placed approximately every 2 miles. Due to the topography and elevation, the Whiskey Row Marathon is considered one of the toughest in the country.

The YARC Net Control station is our command post and is typically located at the finish line of the race, adjacent to other event administrators. YARC operators along the marathon course report all situations back to Net Control, who then records these radio reports and makes sure that the correct event personnel are notified. On this event we use mainly voice to communicate with Net Control.

Our reports may consist of first and last runner bib numbers, injuries, requests for additional supplies at rest/water stops or requests for the YMCA van to pick up individuals who cannot complete the marathon.

Public Service Events are a great way to train for emergency communication events. They also help you learn to use your radio and communicate with others in a

net. Public Service Events also allow amateur radio operators to give back to the communities in which they live.

More operators are needed for the events listed below. You might ask yourself "what am I doing to practice for emergency communications?" or "What am I doing to give back to my community and spread the good words of Amateur Radio?".

The 2014 Event Communications schedule so far is as follows:

- **Friday, Saturday and Sunday, April 25, 26, 27, 2014** will be the three day Whiskey Off Road mountain bike event in Prescott. They are anticipating 2000 riders this year so our communications will be very important to the success of this event. **Signups started at the February YARC meeting. More operators are still needed for all three days.**
- **Saturday, May 3, 2014** is the 36th running of the Whiskey Row Marathon in Prescott. This year there are new race times with the marathon beginning at 7:00 a.m. **Signups started at the February YARC meeting. More operators are still needed for this event.**
- **Saturday, May 3, 2014 (NEW)** will be the Chino Valley Grinder. With it being on the same day as the Whiskey Row Marathon, **Bob Thompson, KC8BOB, has stepped up to coordinate this event.**
- **Saturday and Sunday, May 17, 18, 2014** is the MS-150 bicycle event once again in the Verde Valley. As with the Sedona Marathon, we will be looking for support from the VVARA on this two day operation. Signups will begin at the March YARC meeting.
- **Saturday, May 24, 2014 (NEW)** will be the Groom Creek 'Mountain Mayhem' event. This will be a bicycle event in Groom Creek. **Patti Halgunseth, KD7VBG, will be coordinating this event.** More information to follow as available.
- **Saturday, September 6, 2014** will be the tentative date for the March of Dimes March for Babies in Prescott.

Some of the dates may be subject to change and more events will be added, but this is the schedule so far...

Signup sheets will be available at the April YARC Meeting. Check your calendar and if you haven't already done so, plan to stop by and sign up for one or more of the events. If this will be your first time at participating in YARC Event Communications, you will be assigned with a knowledgeable event communications operator to see just how it works. We all need to start someplace... ■

Need Cards Checked for ARRL Operating Awards?

Jim Zimmerman, N6KZ can check your QSL cards for DXCC, WAS, VUCC, WAC, etc.

For information contact Jim at: (928) 713-0542.

Jim's QTH is at: 778 Grapevine Lane,
Prescott, AZ 86305.

Upcoming Events

- **April 25, 26, 27, 2014** - Whiskey Off Road mountain bike event in Prescott.
- **May 3, 2014** - License Test Session.
- **May 3, 2014** - Whiskey Row Marathon.
- **May 3, 2014** - Chino Valley Grinder.
- **May 17,18, 2014** - MS-150 Bicycle event.
- **May 24, 2014** - Groom Creek "Mountain Mayhem" event.

Like to Submit an Article for the Yavapai Signal?



Share your experiences and/or knowledge with other club members.

Deadline for a submission is the 21st of the month.

Need a Hand?

If you need assistance, we want to help you. If you are just starting out in ham radio, or simply have run across something that you could use a hand with... technical assistance or answers to questions about the Yavapai Amateur Radio Club, are available from knowledgeable club members.



Don't Hesitate to Ask for Help!!

CALL:

Bud Semon, N7CW at: (928) 771- 8267

or

Jim Zimmerman, N6KZ at (928) 713- 0542

Club contacts - At a Glance

President - WB7TPH	president@w7yrc.org
Vice President -	vice.president@w7yrc.org
Secretary - AE7CG	secretary@w7yrc.org
Treasurer - W7BJ	treasurer@w7yrc.org
Board Member - AD7YR	cgrobeck@gmail.com
Board Member - W7HAM	smokey7@cableone.net
Board Member - WB7RRQ	rosevear520@cableone.net
Board Member - WN7E	mrgriz@cableone.net
Arizona WAC Administrator	az.wac@w7yrc.org
Ask Elmer for Help	ask.elmer@w7yrc.org
Badges	badges@w7yrc.org
Field Day Chairman	field.day@w7yrc.org
Fox Hunts	fox.hunt@w7yrc.org
License Classes	classes@w7yrc.org
Mail List	yarc_mail@w7yrc.org
Membership Application	membership@w7yrc.org
Net Manager	net.manager@w7yrc.org
Newsletter Editor	newsletter@w7yrc.org
Program Inputs	programs@w7yrc.org
Public Information Officer	pio@w7yrc.org
Public Service - DEC	public.service@w7yrc.org
Repeater Trustee	repeater@w7yrc.org
Special Events	special.event@w7yrc.org
VE Test Liaison	testing@w7yrc.org
YARC Party Coordinator	yarc.party@w7yrc.org
Information	info@w7yrc.org
Webmaster	yarc@w7yrc.org
Webmaster	w7yrc@w7yrc.org
Webmaster	webmaster@w7yrc.org

APP CHAT

By Rex Mauldin/N7NGM

Alright, I am going to start off this month's section of App Chat about Echolink. I presume that you have read up a bit about Echolink on the web site that I mentioned in last month's issue of the club newsletter. Essentially what the iPhone does with the app is to connect you to the Echolink servers which in turn uses the internet to connect many other users throughout the world. As you will see in Fig. 1, I have connected to IRLP node 9369. I then connected my IRLP node on the local 6 meter repeater to the IRLP node 9369 so that I could make sure the connection is working both ways. This is a good way to test both systems in a pinch by the way. There is an app called IRLP Me that I will discuss later on that you might find interesting.

Echolink and IRLP are similar in that they both use the internet to enable you to communicate using a non-RF device. If you are home bound such as in a care facility or in some other living situation where you are not allowed to have antennas showing outside your home, then both of these systems will be of interest to you. I know some of you who are reading this material have had to make a visit to the hospital for an overnight stay and greatly appreciate what either of these systems can provide. It is for those who have not had to go through such an ordeal that I am attempting to reach out to, to let you know what these systems are all about. Using an RF means to communicate is great but there are times when compromise must take place. More power to those fortunate enough to have antenna towers at home and healthy enough to enjoy them.

There are other nodes I have come across that are linked to HF stations and even allow you to operate HF or VHF/UHF from their location. We have one similar such station at the home of KC7GHT, Joe, who lives in Phoenix and has been at our club to give a talk and demonstration of Echolink. The local 147.22 repeater has Echolink on it as part of the morning net at 7 a.m. that is available to members only at this time.

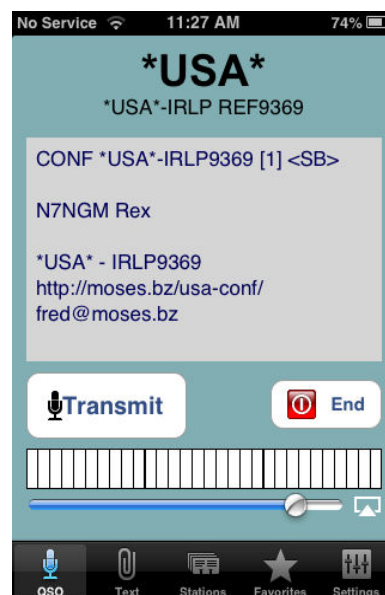


Figure 1

Other interesting nodes are in other countries such as is shown in Fig. 2 & 3, which shows me connected to an Echolink station in Germany. I was looking this one over as a means to communicate via Echolink with my friend Wolfgang as he travels around Germany, France, Belgium and Switzerland. What I found instead was a node that allows me to listen to bulletins and nets. A bit out of my league since I don't know that much German, however it gave me an idea to look up similar stations that use English. I will talk about those in future editions of App Chat. Stay tuned as this gets more interesting yet. ■

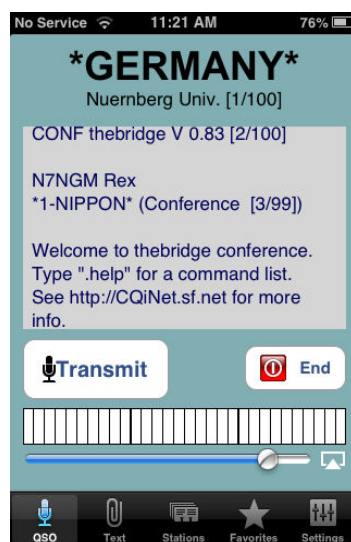


Fig. 2
Node in Germany.

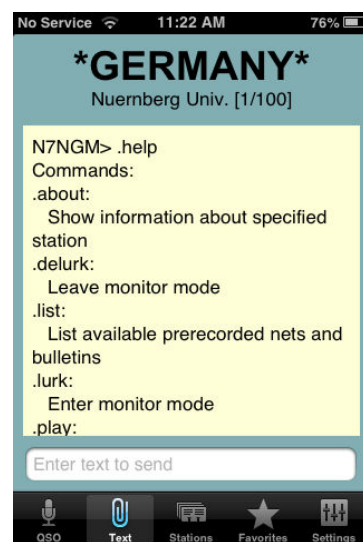


Fig. 3

YARC "Sweetheart" Party

By Don Bauer, WB7TPH

The 2013-2014 Holiday party for the club got off to a late start, due to lack of a host. Once Carol KA7LKW offered to be our party host(ess), we were off and running. Thanks to the late start, we decided to tie the event to Valentine's Day rather than the post-Christmas/New Year party of recent past.

We had a smallish party with 34 registered, and 31 actually in attendance. However, we enjoyed each other and the luncheon very well. Past issues with service and access for some were gone at the Stone Ridge Golf Club. Easy no stair access, a bright and open banquet



Photos Courtesy of John, WB9VGJ

Social Gathering



Table Setting

rapid and very attentive, and we were able to help ourselves to coffee, tea and lemonade from a table set up for the purpose. Each table was set up with candies so we could munch and converse to our heart's content.

In all, I would rate this as an excellent venue for our parties. Now, perhaps we can do next year's party closer to Christmas. Good job, Carol and Stone Ridge!

For more Party photos go to:

<http://tinyurl.com/2014YARCParty> ■

room, excellent food and service made the event very comfortable, indeed.

Carol arranged for a three piece band to entertain during the meal. She and Erika KI7JZ provided a table full of goodies as party favors and we had some nice books from ARRL for drawing prizes. Terry KB7TRE went home with the 2014 Centennial Radio Amateur Handbook. Good going Terry!

Banquet food is always a bit problematic, when many people are being served at one time. This time, we were pleasantly surprised. The food was very good, service



Table of Goodies

March 2014 Foxhunt

By John Broughton, WB9VGJ

The monthly foxhunt was held Sunday, March 9th. Forrest, WH6EAL, Jeff, WB7RFY, and I were the foxes. We hid the transmitters in downtown Prescott.



The teams of hunters were:

1. Bob, WB6ODR, and Linda, KD7EEO.
2. Frank, KF7ANX.
3. Pete, K6VVR, Patrick, KG7EWD, and Diane, KE7ODP.
4. Bryan, W7BNW, and Dave, W7BJ.

Forrest had an excellent idea for a different primary transmitter hunt. He had the primary transmitter in a backpack on the Courthouse Plaza downtown Prescott. He walked around part of the time and sat reading a book part of the time. He thought this would make a very interesting and challenging hunt. That was true for a while as the hunters were getting inconsistent signal readings. However, the primary transmitter malfunctioned and stopped transmitting audio. All the hunters had gotten to the plaza, but none found the transmitter due to the malfunction. So, for this hunt, the first person to find the secondary transmitter was declared the winner.

The weather was beautiful. Jeff, WB7RFY, and I hid the secondary transmitter in a nandina bush on the NW corner of S. Granite St. and W. Goodwin St. We then went to the top level of the parking garage where we could observe the Courthouse Plaza and the location of the secondary transmitter. I was able to get some nice pictures and a video of the hunt from that location.

As noted above, the primary transmitter malfunctioned, so no one was able to find it. All the hunters were able to find the secondary transmitter even though several of them got strong signals indicating it was on the north side of W. Goodwin St. along the fence. Diane, KE7ODP, was the first hunter to find the secondary transmitter. Congratulations to Diane for being the winner.



March's Foxhunt Teams

In spite of the problem with the primary transmitter, all the hunters enjoyed the hunt and were successful, which is the desired outcome.

We had our usual after-hunt get-together at Denny's; the social aspects of the hunts are as enjoyable as the actual hunts.

You can see pictures of the hunt at:
<http://tinyurl.com/YARCfoxhuntMarch92014>

If you want to see them in a slideshow, just click on the slideshow icon above the pictures (Be aware the thumbnails cover part of the bottom of the picture.). Or, you can view them simply by clicking on the first picture then navigating through them.

I made a short video of Forrest walking along on the plaza:

<http://tinyurl.com/YARCfoxhuntMarch2014video>

I also made a short video of a panoramic view from the parking garage:

<http://tinyurl.com/PrescottAZpanoramicview>

We would encourage more folks to get involved in the hidden transmitter hunts. They are really fun and help develop direction-finding skills.

73,
John, WB9VGJ

Granite Mountain Hotshots Memorial Radio Club BY-LAWS

Article One: Name:

The name of this organization shall be:

Granite Mountain Hotshots Memorial Radio Club
(GMHMRC)

Article Two: Purpose:

The express and sole purpose of this organization is to honor the Granite Mountain Hotshots Wildland Fire Team members who gave their lives in public service on June 30, 2013.

It is not the purpose of this organization to raise funds in any way for any purpose. Referrals may be made to any charitable organization whose purpose is to collect funds in support of the fire-fighters.

Article Three: Membership:

Section One: Membership in this organization shall be open to any amateur radio operator who applies for membership via contact with the parent Yavapai ARC.

Section Two: Membership Dues: There shall be no dues or other charges for membership in the GMHMRC. The organization is an affiliate of the Yavapai Amateur Radio Club and funded through that organization.

Section Three: Membership in the GMHMRC shall not expire unless the organization is formally terminated. Members may chose to remove themselves from membership at any time by simply notifying a club officer. Membership may be terminated by the organization for undesirable behavior, at the discretion of the organization.

Section Four: Voting: All members of record are considered voting members.

Article Four: Officers:

Section One: The officers of the GMHMRC shall be a President, Secretary and trustee of the organization's callsign (who may be one of the designated officers). These are necessary in order

that the club obtain and maintain an FCC station license (callsign).

Section Two: Requiring no dues and existing under the direction of the parent organization, no other officers or directors are necessary.

Section Three: The officers shall serve a term of two years. They may be re-elected, or replaced at the discretion of the club.

Section Four: Duties:

The President shall preside over all meetings, and have the responsibility to ensure that the GMHMRC meets all legal requirements imposed by the parent organization.

The Secretary shall be responsible to record and keep the official minutes of meetings, and to maintain all official records.

Article Five: Meetings:

Section One: There shall be a minimum of two official meetings of the GMHMRC. An organizational meeting shall be held each year during the month of January for the purpose of maintaining the organization and preparing a report to the President of the Yavapai ARC, the parent organization.

A meeting shall be held during April to prepare for the annual "Memorial Special Event" radio operation honoring the Granite Mountain Hotshots wildland firefighters.

Additional meetings may be called at any time by the President.

Section Two: Committees: The President, Secretary and membership of the GMHMRC shall serve as a committee of the whole in decisions concerning the organization.

END



Radio Frequency Interference (RFI)

By Joe, AC6AA

At our March YARC meeting we were fortunate to have Mike Martin, K3RFI as our guest speaker.

Mike Martin owns and operates RFI Services, a firm dedicated exclusively to RFI Locating & Training. Mike has been locating interference sources and training all types of utility companies full time for over 25 years and solves hundreds of complaints a year. Mike is multi-licensed by the FCC and considered to be the most experienced Interference Investigator in the country.

Mike was in Prescott to investigate a power line interference problem that has plagued Pete, W7PRG, for two years. Prior to this time, all efforts by APS RFI representative, Danny and others to track down this RFI source have been futile.

During Mike's presentation, he discussed the steps taken to pinpoint this particular RFI culprit, which turned out to be a defective power transformer. He also described the proper procedures to follow while tracking down other RFI problems, and he talked at length about his experiences locating various sources of interference.

Mike gave a very informative and interesting presentation.

The website for his company, RFI Services is at: www.rfiservices.com. The following article on Locating an inside Source of interference is taken from his website:

" How to" Locate Radio Frequency Interference (RFI) or Television Interference (TVI) in a Home

All steps should be performed while interference is active.

1. Go to your main circuit breaker or fuse panel with a battery powered AM radio tuned between stations so all you hear is the offending noise. (*If at night or in an enclosed room, be sure to have a working flashlight.*)
2. If the noise is present and corresponds to the disturbing interference, shut off all power to your prem-



Mike Martin from RFI Services discussing RFI Interference at our March meeting.

ises by turning off the MAIN circuit breaker or equivalent enclosed device. (DO NOT ATTEMPT TO REMOVE CARTRIDGE FUSES or OPERATE EXPOSED or OPEN-TYPE DISCONNECTS IF PHYSICAL CONTACT WITH ELECTRICAL CIRCUITS IS AT ALL POSSIBLE.) If the noise on the AM radio stops while the power is off, the source of the interference is within your own residence.

3. Restore the main circuit breaker. Don't forget to reset clocks after the interference source is located.
4. Assuming the noise stopped while the electricity was off, you can now locate the circuit supplying the power to the noise source. While monitoring the battery powered AM radio as before with the offending noise present, turn off and on the individual circuit breakers one at a time until the noise stops. Leave off the breaker that stops the noise.
5. You must now determine what has been turned off by going from room to room, if necessary, checking outlets, appliances, and lights for the absence of electricity. The offending noise will be something on this circuit. Turn the breaker back on and wait for the noise to return.
6. With the noise back on and using the AM radio to monitor it, return to the area of the noisy circuit and unplug everything on this circuit one at a time until the offending device is found.

Things most commonly found to cause interference are:

Door Bell Transformers	Electric Blankets
Heating Pads (of all kinds)	Recessed Ceiling Light Fixtures
Furnace Control Circuits	
TV Top & Stereo, <u>Amplified</u> Antennas	(*) Causes Radio Interference Only
Aquarium Heaters	*Screw In Photocells
Low Energy Compact (screw in) Florescent Lights	*Touch Control Lamps
Clean Air Machines (table top and furnace type)	*Light Dimmer Controls

These devices, when causing interference, are in violation of Federal Communications Commission rules, regulations and are a nuisance to you and your neighbors. It is important for your own safety to have the offending device repaired or replaced to insure normal safe operation. Most radio and television interference sources are the result of an arc. This arcing will get hot and create a fire hazard. ■

Housework

Housework was considered a woman's job, but one evening, Valerie arrived home from work to find the children bathed, a load of laundry in the washer and another in the dryer. Dinner was on the stove, the table set. She was astonished! She discovered that John had been reading an article that stated, 'Wives who work outside the home and had to do their own housework when they got home were always too tired to have sex'.



The night went well. The next day Valerie told her Red Hat friends all about it. 'We had a great dinner. John even cleaned up the kitchen.. He helped the kids with homework, folded all the laundry and put it away. I really enjoyed the evening.'

'But what about afterward?' asked her friends.

'Oh, that..... John was too tired.'

Is it 75 or is it 80 meters?

By CECIL CANDELARIO, NQ3C

Reprinted from "On The Marc" newsletter

..... Have you wondered why, as you look at the band plan handouts, there is no 75 meter label? Most handouts go from 40 to 60 to 80 to 160 meter listings. But, no 75 meters. And you hear Hams refer to 75 meters. Is this a secret allocation that is not shown on the band plan handouts? Why is that?

.... Briefly, the 80 meter band begins at 3.5 MHz and covers up to 4.0 MHz. The secret is that the upper part of the 80 meter band, that part closest to 4.0 MHz is the portion most Hams use for voice communication. That portion is generally referred to as the "75 meter" portion. The wavelength falls between 80 and 75 meters and has acquired the 75 meter label.

.... Another item of interest is that the 80 meter band is a bit noisy most of the time and reflects atmospheric happenings that may be hundreds of miles away; such as thunderstorms, as well as nearby man made interference sources. In spite of these shortcomings, 80 meters does have its devotees, usually Hams interested in or constrained to use wire antennas such as dipoles on this band. Communication is usually of the shorter distance, up to 1000 or so miles, and most effective during the late afternoon and nighttime.

However, with favorable atmospheric conditions, higher effective radiated power due to a good antenna, around the world contacts can be had.

If you are looking for a good challenge for your voice operating skills, you might consider working the 75 meter band..... or is it 80 meters? It will be your secret.... Good luck. Enjoy, 73 NQ3C

Thinking About Getting on HF?

Reprinted from "Propagation Forecast Bulletin 12 ARLP012", By Tad Cook, K7RA

"Hey, the first day of Spring was yesterday, March 20! With solar radiation equally distributed between the northern and southern hemispheres, we are in an ideal time for HF propagation. Not only that, but we are at the peak of the current solar cycle. This is about as good as it gets, at least for the next decade or so." ■

Barker & Williamson

From "Boat Anchor Manufacturers", at <http://www.ominous-valve.com/ba-mfrs.html>



B&W 5100-B TRANSMITTER

Bandswitching, VFO or crystal controlled. All bands 80 thru 10 meters. 180 watts input on CW, 140 watts AM, 180 watts SSB when used with 51SB-B SSB generator. TVI suppressed. Net.....\$ 475.00

B&W, a Pennsylvania company, started making transmitters for hams around 1939, and continued until the "battleship" style of gear declined in the late sixties.

B&W picked up after the war with its small VFO/exciter, which led quickly to the mighty 5100 series of AM/CW boxes in the fifties. These *very* formidable, grey, rack-size transmitters used the then-new 6146. There were two in the final, and two more in the class B, high-level modulator. Here was an AM box with some balls!

Of course, when sideband came in, the 5100 had to be adapted, and it was, courtesy of the 51-SB, an equally neat-looking box that stood alongside the main transmitter. The combo did 180W PEP on sideband, using the phasing method. Later, there was a 5100-B, with its 51SB-B.

Your roomful of equipment was rounded out by the LPA-1, a grounded grid linear, actually an ultra-linear, using two 813s in triode connection with inverse feedback. The LPA-1 sat on your desk. Its hulking HV supply, with its four 866s in a full-wave bridge, did not, unless you had a bigger desk than normal humans. The mercury in this thing is practically enough to make your home a haz-mat site in itself. Even so, this 2 kW PEP amp was made until the late sixties, sometimes in kit form.

These are interesting circuit designs. This must have been a pretty nice sounding kW.

In 1961, the 5100 was replaced by a big, rather strange box, the B&W 6100. Its case and panel matched the LPA-1 perfectly, as did its 100 watt output, CW or PEP. Internally, it looks like a pretty decent rig, with crystal sideband filters and 6146 finals.

This radio is guaranteed a place in vacuum-tube lore, due to its use of a true, crystal controlled, frequency synthesizer. This had to be some kind of first for the ham market in general, not just for the tube era. One clunks the typically heroic bandswitch into position, then dials in the working frequency by turning three knobs on a black panel at the center of the otherwise grey box. These go to a couple of tube VXOs, a comparator, and an RF amp.

Needless to say, the 6100 was an expensive rig, and ahead of its time. According to Raymond S. Moore, only 200 were made. A friend of mine has one. So there.

B&W always had a whole line of amateur-grade accessories. Their TR switch, that allowed full break-in on CW, was popular. They still make antenna switches and such, plus a rather expensive, wide-coverage, dipole that sells well to the military. You can have one too, for only U.S. \$100. ■

Spring Cleaning Time!

Start saving ham stuff for the Williams Hamfest. YARC will have a booth, and we will need stuff to sell.

You can bring donations to the club meetings or let Don Bauer know that you have items to donate. We can make arrangements to pick up.

Plan to Join the ARRL or Renew Membership ?

Download the ARRL Club Membership application from the YARC Website. Complete the Application and return it to the Treasurer with the application fee.

There is no extra cost to you, and our club gets to retain a portion of the dues.

Q-Signals

Q-signals: A series of three letter codes beginning with the letter Q. Each code, or Q-signal, has an internationally defined meaning and is designed to facilitate communications between stations, especially those using different languages. Q-signals date back to at least the early 1900's and are used by many radio services. They are redefined from time to time. Amateur radio has added a few "unofficial" Q-signals of its own. Most prominent are the QN... signals QNA through QNZ. The "N" comes from Net. These codes were developed to facilitate traffic handling on amateur nets filling in gaps left by the international Q signals and facilitating needs unique to amateur operation. Another unofficial Q-signal is QST: "Calling all radio amateurs"; and the title of the ARRL journal "QST".

A Q-signal immediately followed by a question mark becomes a query rather than a declaration. For example, QSL means "I confirm receipt of your message" but QSL? means "do you confirm receipt of my message?".

QSL is probably the most abused Q signal used. Note that it does NOT mean yes, I agree, you are correct, affirmative, or any other such thing. Its use should be reserved for message and information handling.

While developed specifically for Morse code use, some Q-signals are convenient in phone operation and have crept into use. Also, some Q signals are sometimes used in conversation with more loosely defined meanings than the formal ones, for example:

QRM: Interference from another radio station.

QRN: Natural interference such as static from atmospherics and electrical equipment.

QRO: High power operation.

QROp: Low power operation greater than 5 watts output.

QRP: Low power operation, usually 5 watts output or less. (10 watts input or less in the old days.)

QRPp: Very low power operation.

QRT: Sometimes used on phone to indicate an operator is going to shut down his station. On CW, CL (for closing station) is also used.

QSK: Sometimes used to break in on a conversation.

QSL: As a verb: Referring to the process of sending and receiving written confirmation of a contact via QSL Card. As a noun: A QSL card.

QSO: A contact or conversation with another station.

QTH: A Location -- for example, "My QTH is in Prescott, Arizona"

Ham Station For Sale:

Icom: IC-746 transceiver, New: (\$1689 - \$300 Coupon) = \$1389

SM-20 Companion Desk Mic. New: \$175

SP-21 Companion Speaker. New: \$95

All perfect in Serial Number Box with manual. Group: No Reasonable Offer Refused (NROR)

Astron: RS-35M (with meters) Power supply. Perfect. Current @ Ebay: \$190 Now: NROR
(13.8 VDC at 25A continuous, 35A Peak)

Kenwood: PS-430 Power supply. With Kenwood transceiver supply source cord. Now: NROR
(13.8 VDC at 10A continuous, 20A Peak).

Icom: IC-2350H Dual Band FM Transceivers (3). 2 perfect W/ UT-101 DTMF En/Decoders.
1 operable w/dimmed display, Now NROR 2 Now Ea.: NROR All in S/N boxes W/manuals.

T.G.M. Communications: MQ-26SR 6 band Hybrid Mini Quad antenna. M: 6-12-17-10-15-20.
(This is a great antenna that I always received good reports on). New \$700. Now: NROR
Antenna is currently fully assembled, ready for mounting.

Comet: GP-9 Ultra High Gain Dual Band Vertical Antenna, 2 M & 440 Mhz. New \$180. Now: NROR
(My tests: This is the best dual band antenna available).

Alpha Delta: Transi-Trap Lightning surge protection Mod. TT3G50. New: \$50. Now: NROR
Perfect W/Replacement Arc Plug Cartridge & manual.

Delta-2: Coax switch. New: \$25 Now: NROR

Tigertronics: PSK Interface with all cables & connectors. New:\$60 Now: NROR

Coax: "Tons" yet to be sorted & evaluated.

Misc.: Many various to be sorted & evaluated.

Cushcraft: Several vertical antenna's yet to be sorted & priced.

One 60 ft., 10 ft. sections, 3 leg self-supporting tower with mounted Hy-Gain HD-45-II rotor and controller. Tower use function modified for tilt over operation with HD dedicated base platform. Tilt over function includes manually operated Reese winch and cable. The top three 10 ft. sections were powder coated 17 years ago and presently show 15% rust stain. The balance of tower 3 sections previously unneeded, were not powder coated, are rust stained, held unused and undamaged. Tower with base platform, rotor and winch must be sold as a unit, some disassembly required by purchaser. Rotor lubed and includes user manual. \$175 or OBO.

N7QQJ Richard McCahill azmac@cableone.net P.O. Box 833, Dewey, AZ 86327 772-0865

Weekly Breakfasts



Wed. Morning Breakfast:

7:00 a.m. at

Iron Horse Restaurant

(Hwy 89 in Chino Valley)

(N 34°43'56.5" W 112°27'15.4")

informal – all are invited

Breakfast at Masonic Lodge: 3rd Saturday of each Month at 9:00 a.m.

(1280 Willow Creek Road,

2nd Floor; above Bank of America)

informal – all are invited

* Location data (per WGS84) provided

by Fred Zimmermann, N7PJN

Area Repeaters

Freq.	PL	Location	Owner/ Club	Auto- Patch	Links	Vo IP	Notes:
52.560-	100.0	Mt. Union	N7NGM			IRLP	Node 3301
144.390	Simplex						APRS- www.aprs.fi
145.290-	127.3	Mingus Mtn.	K7YCA				ARES/RACES
145.350-	162.2	Wildflower	W7QHC				Dawn
146.760-	131.8	Hayden Peak	N7SKO				WECOM INC
146.780-	91.5	Bill Williams Mtn.	K7NAZ			IRLP	BWMRC LITZ, 3178
146.880-	100.0	Prescott Heights	W7YRC				YARC
146.920-	162.2	Mount Ord	W7MDY				ARA
146.980-	162.2	Mt. Elden	W7ARA				ARA
147.000+	162.2	Mingus Mt.	K7MRG				MMRG
147.140+	162.2	Mt. Elden	W7ARA				ARA
147.220+	162.2	Mingus Mtn	W7EI				VVARA LITZ
147.260+	103.5	Mt. Union	K7YCA				ARES/RACES
147.260+	127.3	Mt. Francis	K7YCA				ARES/RACES
147.360+	162.2	Mt. Ord	W7MDY				ARA
442.150+	100.0	Mingus Mtn	K7MRG				MMRG
446.025	Simplex		N7NGM			Echo	
448.475-	100	Mt. Elden	W7ARA				ARA
448.875-	100.0	Mt. Elden	W7ARA				ARA
449.250-	192.8	Chino Valley	K7POF				
449.7250-	107.2	Mingus Mtn	K6DLP				
927.0875-	151.4	Mingus Mtn	WB7BYV				
927.3875-	151.4	Prescott	WB7BYV			Echo	ARA

Y.A.R.C. IRLP NODE

Node Number 3182

146.100 MHz No PL Tone

T-Hunt Frequencies:



Primary - 145.100 MHz

Secondary - 146.565

For more Repeater Information & Listings refer
to:

- www.w7ara.org/Web/
- www.azrepeaters.net
- www.azfreqcoord.org/listings.htm

YAVAPAI AMATEUR RADIO CLUB

P.O. BOX 11994

PRESCOTT, AZ 86304

Visit us on the web at <http://www.w7yrc.org>

Many thanks to Dick Hughes, W6CCD, our Webmaster

